

## Wisconsin Department of Natural Resources SWIMS Project Summary

### General Project Information

**Project ID:** GLRI\_00E00573-0  
**Name:** HIPEE, Habitat Improvement Project in the Estuary Environment  
**Type:** Great Lakes Restoration Initiative  
**Subtype:** Habitat  
**Status:** ACTIVE  
**Start Date:** 10/01/2010  
**End Date:** 12/31/2099  
**Purpose:** There are approximately 15 miles, or 18 acres, of hardened shoreline in the Milwaukee AOC. Banks armored with vertical steel sheet pile walls, retaining walls, concrete, and steel bulkheads provide structural bank stability to adjoining properties and eliminate erosion from passing barges and other navigational traffic, but eliminate natural sloping stream banks, natural vegetative patterns, and the habitat therein. Channels have also been widened and dredged to depths of 10 to 28 feet to suit commercial navigation. This massive growth in channel size from natural and upstream conditions causes average current velocities to decrease and young fish may become trapped in the shipping channel without adequate current speeds to allow their return to the lake.

The Habitat Improvement Project in the Estuary Environment (HIPEE) seeks to introduce quality habitat along this degraded riverine corridor. The project location within Wisconsin's most populated river basin significantly enhances the potential to attract large numbers of recreational anglers. Other game and sport fish targeted by the project included perch, bluegill, and Lake Michigan trout and salmon.

**Objective:** The Habitat Improvement Project in the Estuary Environment (HIPEE) seeks to introduce quality habitat along a degraded riverine corridor within the Milwaukee Estuary Area of Concern (AOC). Targeting two sites, HIPEE will demonstrate the ability of Habitat Underwater Baskets (HUBs) to provide habitat for fish and other aquatic life. HIPEE seeks to use flexible, adaptive techniques to provide habitat and nourishment for young fish within the AOC, utilizing lessons learned from the Cuyahoga Habitat Underwater Baskets Project (CHUBS), and those of the Chicago area's Fish Hotel that has survived for 5 years and boasts a positive public response.

Our project team will convene a group of local fisheries and habitat experts to determine the best techniques to use within the project areas. These unique designs will be specifically engineered to reflect wall conditions, water quality, freeze/thaw patterns, ice and wave action, tolerant vegetation, and target species needs. After installation, the DNR along with area non-profits will monitor plant survival and other aquatic life (macro invertebrate) use of these designs. Demonstrating innovative habitat restoration techniques was recommended by the Milwaukee Estuary RAP in 1994

**Comments:** \$140,000

**Outcome:** Outcomes and deliverables:

- ¿ Demonstrated value and function of Habitat Underwater Baskets (HUBs) to provide habitat for fish, other aquatic life and wildlife in a highly degraded and modified urban river corridor.
- ¿ Installation of 50 HUBs and 10 fish hotels
- ¿ Selection of a minimum of 5 species of plants use in the HUBs, and 10 species for the fish hotels, including emergent and submergent placements.
- ¿ Data on HUB attachment design and conduciveness to this type of habitat restoration and Improve HUB implementation protocol to increase survival rate of plantings
- ¿ Data set of monitoring results of vegetation health and growth with photo documentation and to diversity and relative abundance of the fish and macro-invertebrate communities near the HUBs which will be shared with other AOCs
- ¿ Signed maintenance / use agreements with landowners
- ¿ Educational, employment, and training experiences for community members
- ¿ Increased Public support for AOC habitat restoration

**Study Design:**

**QA Measures:**

### People

Name	Role	Status	Start Date	End Date	Organization	Comments
Driscoll, Mary Beth	COORDINATOR	ACTIVE	10/12/2010		Groundwork Milwaukee, Inc.	

### Project Statuses

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Date	Reported By	Status	Comments		
<b>Actions</b>					
Action	Detailed Description		Start	End Date	Status
Fish Management, Access	<p>There are approximately 15 miles, or 18 acres, of hardened shoreline in the Milwaukee AOC. Banks armored with vertical steel sheet pile walls, retaining walls, concrete, and steel bulkheads provide structural bank stability to adjoining properties and eliminate erosion from passing barges and other navigational traffic, but eliminate natural sloping stream banks, natural vegetative patterns, and the habitat therein. Channels have also been widened and dredged to depths of 10 to 28 feet to suit commercial navigation. This massive growth in channel size from natural and upstream conditions causes average current velocities to decrease and young fish may become trapped in the shipping channel without adequate current speeds to allow their return to the lake. The Habitat Improvement Project in the Estuary Environment (HIPEE) seeks to introduce quality habitat along this degraded riverine corridor. The project location within Wisconsin's most populated river basin significantly enhances the potential to attract large numbers of recreational anglers. Other game and sport fish targeted by the project included perch, bluegill, and Lake Michigan trout and salmon.</p>		10/01/2010	12/31/2099	PROPOSED
<b>Monitoring Stations</b>					
Station ID	Name	Comments			
<b>Assessment Units</b>					
WBIC	Segment	Local Name	Official Name		
15000	1	Milwaukee River	Milwaukee River		
<b>Lab Account Codes</b>					
Account Code	Description	Start Date		End Date	
<b>Forms</b>					
Form Code	Form Name				
<b>Methods</b>					
Method Code	Description				
<b>Fieldwork Events</b>					
Start Date	Status	Field ID	Station ID	Station Name	
<b>Documents</b>					

## Wisconsin Department of Natural Resources SWIMS Project Summary

Title	Description	Author	Published	Comments
HIPEE, Habitat Improvement Project in the Estuary Environment, GLRI proposal review, Driscoll		Driscoll, Mary Beth	02/02/2011	

### Budget

Combined Budgets:

Combined SLOH:

Combined Total:

### Funding

Organization	Source	Type	Amount	Start Date	End Date
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